Mackay Recreation Site Environmental Assessment and Project Plan
EA # ID-040-9019
Department of the Interior
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PART I

I. ENVIRONMENTAL ASSESSMENT (ID-040-9019)

A. INTRODUCTION

Background

The Joe T. Fallini Campground, within the Mackay Reservoir Recreation Site, was originally constructed in the late 1960's to accommodate camping and day use activities adjacent to the Mackay Reservoir (see attached map). Heavy use, changing demands and regulations, and deterioration of the thirty plus year old site is causing concern for the health and safety of the visitor.

The recreation site lies on the north shore of 1,341 acre Mackay Reservoir. The site consists of 80 acres of public land withdrawn in 1966 from all types of appropriation. Recreation facilities were constructed on 40 acres in 1968 and were updated in 1984. From 1984-1988 the flat restroom roofs were replaced with peaked roofs to stop leaking problems and the west parking area was redesigned to provide for RV camping, boat trailer parking, and day use parking. These facilities are the only major developments adjacent to the reservoir, so most of the recreation use takes place within the campground, boat launch and day use area. The Lost River Irrigation District owns the reservoir, which is accessed through an independently owned boat ramp.

Currently there are 57 camping units, a potable water system, sewage dump station, five vault restrooms, and gravel access roads (including access to the launch ramp facilities).

Proposed revitalization of facilities would include: updating the potable water system, redesigning roadways, sewage dump station, tent, trailer and recreational vehicle (RV) campsites (including the “host” site). The restrooms would be replaced and new facilities would include a fish cleaning station, play area, short interpretive trail, warming hut, picnic sites, and a group shelter. Facilities would be built to current ADAAG (Americans with Disabilities Act Accessibility Guidelines) universal accessibility standards. Programs would be developed to comply with Section 504 of the Rehabilitation Act of 1973.

Type of Action

A fully developed recreation site, in the context of a Roaded Natural setting, would be constructed at the Mackay Recreation Site along U.S. Highway 93.

Purpose and Need for Proposed Action

The purpose of this proposed project is to redevelop the recreation site in order to meet current Land and Water Conservation Fee Site (LWCF) and Americans with Disabilities Act

Accessibility Guidelines (ADAAG) standards, replace aging infrastructure systems posing potential visitor safety hazards, and to provide for changing recreational needs. The need arises primarily from the age of the site. Nearly all of the facilities at the Mackay recreation site were installed in the 1960's. They are deteriorating due to age and heavy visitor use to an extent beyond which routine maintenance can solve, necessitating facility replacement. Public demand for developed campsites is increasing, particularly sites which can accommodate large (> 40 feet) recreational vehicles (RVs).

Location of Proposed Action:

The Mackay Reservoir Site (Joe T. Fallini Campground) encompasses approximately 80 acres in the southern part of Custer County, 6 miles north of Mackay, Idaho. The parcel is readily accessible by US Highway 93, which parallels the eastern boundary. The western boundary of the site is the Mackay Reservoir. The site is located at T. 7 N., R. 23 E., Sec. 1, SW 1/4 SW 1/4 and Sec. 2, SE 1/4 SE 1/4.

Conformance with Applicable Land Use Plan:

The proposed action is in conformance with the Challis Resource Management Plan, approved in July of 1999. Recreation goal #1(pg. 52) directs BLM to protect the unique recreation values of the Mackay Reservoir Special Recreation Management Area (SRMA).

Relationship to Statutes, Regulations, or Other Plans:

The proposed action is in accordance with the regulations in 43 Code of Federal Regulations (CFR) 8323, and under the authority in Section 302 (b) of the Federal Land Policy and Management Act of 1976 (43 USC 1732), and the Mackay Reservoir Recreation Area Management Plan approved 1984. While there are various fish species present in the Mackay Reservoir, there are no threatened or endangered salmonids listed under the Endangered Species Act of 1973, as amended. Therefore, no consultation with the National Marine Fisheries Service or the United States Fish and Wildlife Service is required for this project.

Coordination with Other Public Agencies

It is anticipated that BLM will have the lead in developing, managing and maintaining the facility. Coordination with the Big Lost River Irrigation District, U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, Idaho Department of Transportation, Idaho Department of Parks and Recreation, and Butte and Custer Counties will also be necessary.

B. SUMMARY OF ALTERNATIVES

Alternative I Minimal Site Improvements

Under this alternative the site would continue to be used and managed in much the same manner and degree as it is currently used. There would be no major improvements to the site. When necessary, the existing vault toilets and picnic tables would be replaced using ADAAG accessible designs. At least two sites would be reconstructed to meet accessibility standards.

To control the spread of noxious weeds, an aggressive weed treatment program would be initiated at the disturbed site. All equipment would be washed and weed free prior to any work causing a ground disturbance. An appropriate native plant species mix would be planted immediately after work is completed to stabilize the soils and reduce the ability of weed species to invade the disturbance area.

Alternative II Site Reconstruction, Partial Paving of Roadways, Parking Areas, and Camping Spurs (Proposed Action)

A full service recreation site with campground and day use facilities would be constructed at the Recreation Site to enhance recreation opportunities and protect those values on public lands managed by the BLM within the Mackay Reservoir Special Recreation Management Area (SRMA). The reconstruction of facilities would consist of the following:

General Items

- Rehabilitate the existing road system, eliminating unnecessary roads, developing new road alignments, and installing culverts where necessary.
- New asphalt would be shaped to discourage channelization of flows off of the asphalt surface.
- The existing fee station at the site entrance would be removed and replaced with a general information bulletin board and fee area sign with night lighting.
- The existing sewage dump station would be upgraded to include an on site treatment system and leach field or provide a 6,000 gallon capacity holding tank on an asphalt paved two lane loop road. Potable water for tank filling and a dumpster would be provided at this location.
- All existing vault toilets would be removed. New accessible toilets would be installed in the campground and day use areas.
- All above ground structures would be designed to blend into the surrounding environment through color, design, and location.
- All asphalted surfaces would be color treated, either immediately or during application of sealant, to blend into the surrounding environment.
- A water hose bibb/drinking fountain and night lighting would be provided at each restroom.
- All free standing hose bibbs would be equipped with gravel wells to preclude overland flow of splash water.
- Each vault toilet building would be oriented to provide southern exposure for the vent stack.

- Dumpsters would be located throughout the recreation site.
- An interpretive trail would connect the east and west camping loops.
- All campsites would include an area for tent space (except west loop pull through sites).
- Accessible site furniture (tables and fire rings) would be provided at all campsites.
- A water hose bibb would be provided at each RV campsite.
- Infrastructure for underground electrical power would be provided at each RV campsite.
- Drought tolerant shrubs and/or trees would be planted throughout the recreation site to provide shade and screening for all visitors. Any fuels created through yearly maintenance and pruning would be disposed of either through hauling to off site locations or supervised pile burning within the project area. The Burn Boss would adhere to all restrictions placed on burning by the Montana/North Idaho Inter-state Airshed Group. In addition, the Burn Boss would monitor local conditions and suspend burning if smoke conditions become adverse to the local airshed.
- A drip irrigation system would provide water for newly installed plant material.
- No facility development would occur below the high water line.
- Silt fences would be utilized during construction and planting to eliminate sediment flow into the reservoir.
- All equipment would be washed and weed free prior to any work causing a ground disturbance. An appropriate native plant species mix would be planted immediately after work is completed to stabilize the soils and reduce the ability of weed species to invade the disturbance area.
- An aggressive weed treatment program would be initiated at the disturbed site. These prevention tactics would include: Weeds present must be sprayed or removed prior to construction; equipment must be cleaned and weed free prior to entry onto the construction site; once within the site equipment should be cleaned after working on a weedy area before movement of the equipment to a non-weedy area within the site; minimizing the removal of established vegetation during design and construction; immediately after each phase of construction a native seed mix would be spread throughout the disturbed areas; weed free source of gravel/fill shall be used and finally; after the site is opened to the public an aggressive weed treatment plan shall be instituted, including encouraging a weed-free user ethic.
- Night lighting would be provided at all appointed facilities.

<u>Day Use and Boat Launch Area</u>

- Picnic/day use sites would be located in this area.
- A group shelter would be provided.
- An accessible play area would be provided.
- Water hose bibb(s)/drinking fountain(s) near the picnic sites and group shelter would be installed.
- Dumpsters would be located in this area
- Passenger vehicle parking would be provided.
- A fish cleaning station would be located near the boat launch parking area

- Enclosed warming hut with wood stove heat source would be located near the boat ramp and reservoir
- An accessible restroom with night lighting, water hose bibb/drinking fountain, and parking area would be located here.

East Loop Camp
- Camp loop road would be asphalt paved to the first two accessible sites and including the restroom loop.
- A return loop would be provided at the restroom on the north end of the camp loop to allow rest area users to return to the highway without driving through the camp loop.
- A restroom with night lighting, water hose bibb, and parking would be located at each end of the camping loop.
- A bulletin board and fee station would be provided at the entrance (north end) of the camping loop.
- Low density camping would occur in this area.
- Pull through RV campsites would be located in this loop, accessible sites would be provided.
- Several tent only sites would be located in this camping loop with an accessible restroom, hose bibb/drinking fountain, dumpster, and parking facilities.
- Shade/wind shelters would be provided.

West Camp Loop
- A bulletin board and fee station would be provided at the entrance to the loop near the host site.
- A pull through host site with asphalt paved two lane access loop, storage shed, sewage holding tank, electrical service, phone line, and water hose bibbs would be provided at this camping loop.
- Access road to the boat ramp area and boat trailer parking area would be asphalt paved.
- High density camping would occur in this area.
- A restroom with night lighting, water hose bibb/drinking fountain, and parking would be located at each end of the camping loop.
- Existing pole fence would be removed and replaced with appropriate campsite delineators.
- Group camping sites consisting of multiple back in sites, would be located in this loop.
- At least one accessible site would be provided at each group site.
- Pull through RV sites would be located in this camping loop.
- Back-in RV sites with double wide parking spurs for boat trailers would be located in this camping loop.
- Shade/wind shelters would be provided.

Alternative III Site Reconstruction, Paving of all Roadways

Under this alternative the site would be totally reconstructed in identical fashion as in Alternative II except that all roadways, camping spurs, and parking areas would be asphalt paved.

Alternative IV Improve Existing Roadways and Replace Substandard Vault Toilets

Under this alternative, the site would continue to be used and managed in much the same way as now except the highway approach, entranceway, interior roadways and parking areas would be redesigned, constructed and marked to BLM standards. Roadway would be reconstructed as a two-lane gravel roadway. The approach to the highway would be shaped and widened to accommodate large recreational vehicles. There would be five accessible precast concrete vault restrooms installed to replace the existing toilets. Three dumpsters would be provided.

To control the spread of noxious weeds, an aggressive weed treatment program would be initiated at the disturbed site. All equipment would be washed and weed free prior to any work causing a ground disturbance. An appropriate native plant species mix would be planted immediately after work is completed to stabilize the soils and reduce the ability of weed species to invade the disturbance area.

Alternative V Close and Rehabilitate Site

Under this alternative, the site would continue to be open for two years while a site rehabilitation plan is developed. Eventually the toilet, roadways (except the launch ramp access road which would be retained), and picnic tables would be removed and the site would be closed to vehicle access. The area would then be rehabilitated to natural terrain and revegetated to natural conditions.

This alternative is considered not to be compatible with the current management direction: The 1999 Challis RMP states on page 52 that Mackay Campground will be managed as a developed recreation site within the Mackay Special Recreation Management Area. This alternative is also incompatible with the purpose and need of the proposed project and therefore is rejected and is not analyzed in detail.

C. AFFECTED ENVIRONMENT

General Setting

Mackay Recreation Site is located along U.S. Highway 93, a major north-south highway extending from the Canadian border just west of Glacier National Park in Montana to Phoenix, Arizona. This highway carries large numbers of tourists because it serves as a major access route to many popular, nationally-known recreation and vacation destinations including Glacier National Park, the Main and Middle Forks of the Salmon National Wild & Scenic Rivers, Sawtooth National Recreation Area, Great Basin National Park, Lake Mead National Recreation Area, and Grand Canyon National Park.

The site consists of eighty acres of public land withdrawn in 1966 from all types of appropriation. The boat ramp and docks are owned by the Custer County Boating and Waterways Committee. The land below the high water line in the reservoir is owned by the Big Lost River Irrigation District.

The site was developed in the 1960s and is comprised of 57 camp sites divided into two main loops (east and west) with several graveled interior access roads. There are five vault toilets, an R.V. sewage dump station, potable water spigots scattered throughout the site, three dumpsters, picnic tables, fire pits, shade shelters, and access to the boat ramp. With the exception of new restroom roofs and a redesigned RV parking area in the west loop, all of the facilities and infrastructure are nearly 40 years old.

The recreation site is predominantly natural in character. There is minimal facility and amenity development. There are no individual site hook-ups to water or electricity, plumbing in the restrooms, permanent structures (such as visitor centers, lodges, etc.), or vegetative manipulations noticeable to the casual observer.

Both the proposed action and alternative actions have been inventoried and consultation under the National Historic Preservation Act of 1966 (as amended) has been conducted in accordance with BLM's National Programmatic Agreement and the implementing Protocol agreements between Idaho BLM and the Idaho State Historic Preservation Office. This project would have no effect to cultural resources.

Mackay Reservoir is stocked with hatchery rainbow trout and kokanee salmon, neither of which are native to the Big Lost watershed. These species are planted in the reservoir to provide a put-and-take fishery, and the reservoir has the reputation of being one of the best ice-fishing destinations in the region. Project-specific stipulations, such as erosion control and hazardous material containment during construction, would assure that water quality and fisheries resources would not be impacted during the recreation site rehabilitation.

Endangered Species Act: A Biological Assessment was completed and determined that the project will have no effect on federally listed species. This finding is based on the fact that there are no federally listed salmonids in the Big Lost system.

Clean Water Act 303 (d) listed Streams: The Big Lost River from Chilly Slough to Mackay Reservoir has been identified as impaired by sediment and nutrients by the Idaho Department of Environmental Quality, as per Clean Water Act, Section 303 (d), but the reservoir itself is excluded from this listing.

Table 2-Critical Elements of the Human Environment

Some of the following elements of the human environment are subject to requirements specified in statute, regulation, executive order, or policy and must be considered in all environmental assessments. Others have been added to the following list because of their importance in assessing impacts. All the following elements have been analyzed. *However, elements denoted by an "X" are **NOT** affected by the proposed action and will receive no further consideration.*

____ Air Quality	_X_ Areas of Critical Environmental Concern
_X_ Cultural Resources	_X_ Farm Lands (prime or unique)
_X_ Flood plains	_X_ Native American Religious Concerns
_X_ Threatened/Endangered Animals	_X_ Threatened/Endangered Plants
_X_ Threatened/Endangered Fish	_X_ Wastes, Hazardous or Solid
_____ Water Quality - Surface & Ground	
_X_ Wild & Scenic Rivers	_X_ Wilderness
_X_ Availability of Access/ Need to Reserve Access	_____ Soils
_X_ Wild Horse and Burro Designated Herd Management Areas	_X_ Wetlands/Riparian Zones (including uplands)
_____ Vegetation types, communities; vegetative permits and sales;	_X_ Mineral Resources
_X_ Rangeland resources	_____ Invasive, Non-native Species
_____ Wildlife	_X_ Forest Resources
_X_ Economic Feasibility of Agricultural Entry	_X_ Paleontological Resources
_X_ Indian Trust Resources	_X_ Tribal Treaty Rights
____ Recreation Use, Existing and Potential	____ Visual Resources
_X_ Existing and Potential Land Uses	____ Economic & Social Values
_X_ Environmental Justice (EO 12989) (minority and low-income populations)	_X_ Fisheries

_X_ No chemical or chemicals from the EPA's Consolidated List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, (10,000 pounds or more), will be used, produced, stored, transported, or disposed of in implementing the proposed action. No extremely hazardous substances, as defined in 40 CFR 355, will be used, produced, stored, transported, or disposed of in implementing the proposed action. *If this element is not checked, see EA document for further details concerning these chemicals and/or hazardous substances.*

Affected Resources/Values

Air Quality

Under the Clean Air Act (as amended in 1977), BLM-administered lands were classified Class II. This classification allows moderate deterioration of air quality with moderate, well controlled population and industrial growth. The Challis RMP directs BLM to minimize air quality deterioration.

Air quality in the area is very pure with few emission sources nearby. The nearest town, population of approximately 500, is five miles away, while the nearest industrial site is the Idaho National Engineering and Environmental Laboratory (INEEL), approximately 50 air miles to the southeast, over the Lost River mountain range. More locally, air quality at the project site is currently affected to a minor degree by emissions from vehicles, campfire smoke, and dust made airborne from vehicle passage over gravel/dirt access roads and winds sweeping through the dry valley.

Water Quality

The project area is situated on the east shore of Mackay Reservoir, a 1,341 acre irrigation impoundment. Reservoir water is released each year for downstream irrigation. There is also circulation of water within the reservoir, which promotes adequate levels of dissolved oxygen in the reservoir. Sediments from the Big Lost River and Thousand Springs Creek deposit in Mackay Reservoir. Motor boats on the lake are a potential source of minor amounts of spent gasoline and oil.

The State of Idaho Department of Environmental Quality has not identified any water quality issues specific to Mackay Reservoir.

Vegetation and Soils

The area within the immediate vicinity of the project site consists of greasewood and sage brush vegetation types. The hillsides adjacent to the campground are characterized by semi-arid uplands composed of sagebrush and native drought-tolerant vegetation types. Vegetation is slow to naturally regenerate after disturbance, because of limited precipitation. Currently there are about 30 artificially planted cottonwood hybrid trees that are drip irrigated. Soils are Thousand-Redfish-Copperbasin alluvial material, poorly drained valley floor soil, with landforms nearly level to undulating slopes.

Invasive, Non-native Species

Weed species of concern within the project area include: A) spotted knapweed - a biennial or short lived perennial introduced from Eurasia. This plant readily establishes itself on any

disturbed soil, and grows in early spring and competes well for nutrients and soil moisture. There is evidence that the plant produces a chemical substance which inhibits growth of surrounding vegetation. B) Leafy spurge - a perennial introduced from Eurasia which reproduces by vigorous rootstalks and seed. Seed capsules, when dry, project seeds as far away as fifteen feet. Seeds may stay viable in the soil for up to 8 years. A white latex found within the plant may cause irritation to the skin and may result in blindness if eye contact is made.

Visual Resources

The project area is located in the Northern Rocky Mountains physiographic province, though dominated by Basin and Range topography, and specifically in the Thousand Springs Valley approximately 6 miles north of Mackay, Idaho. This valley is surrounded and dominated by the White Knob Mountains to the southwest and the Lost River Range to the northeast. The valley is a semi-arid upland dominated by sagebrush, with numerous springs and related riparian vegetation trailing through the lowest lying areas. The dominant water feature in the region is Mackay Reservoir.

Joe T. Fallini campground is viewed as foreground from the highway which is superior to (above the level of) the site, and foreground/middleground from the reservoir which is inferior to (below the level of) the site.

The proposed project is located in a VRM Class II designation. VRM class II constraints allow changes to the basic landscape elements so long as contrasts do not attract attention.

Wildlife

Mule deer, pronghorn antelope, sage grouse, cottontail rabbits, deer mice, kangaroo rats, and many other small mammal and bird species can be found inhabiting the sagebrush-grassland vegetation in the general project area. Three species of reptiles and at least one amphibian may also be found in the area. The continual human activity associated with the recreation site limits its value as wildlife habitat for most species. Small birds and ground-dwelling animals are typically the only wildlife present within the campground area.

Recreation Resources

Mackay Recreation Site lies within a Roaded Natural setting as classified by the Recreation Opportunity Spectrum (ROS).

The project site appears mostly natural with native vegetation predominating the area and rustic design facility development. Road access designs allow for sedans, trucks, trailers, and moderately sized RV's. Managerial controls are communicated through fee station bulletin boards and contact with seasonal employees and volunteer camp hosts. The social setting allows for

considerable visitor interaction with some chance of privacy. Little reliance upon outdoor skills is necessary.

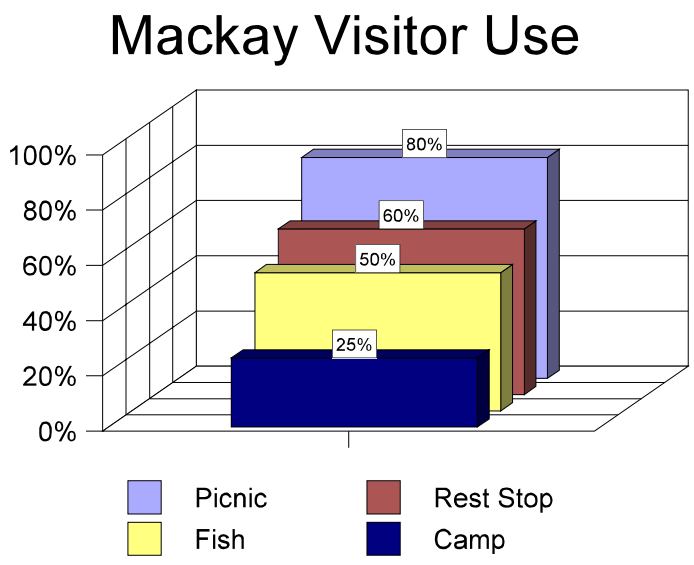
Facilities provided at Mackay Reservoir are overnight camping and day-use activities such as fishing and boating. Use levels are heaviest during the summer months with moderate use in the fall by hunters and short duration but often intense winter use associated with ice fishing.

In 1998 summer camp host records show that there were 1,903 campers from May-October, with averages of 2.47 people/group and 1.7 nights/stay. Data collected in 1999 documents 2,015 campers from May-October, with averages of 2.55 people/group and 1.68 nights/stay. Use data from 2000 is missing, but in 2001 (a severely low water year) there were 1,401 campers from May-October, with averages of 2.6 people/group and 1.7 nights/stay.

Mackay Visitation

	# of campers	# camping groups	avg. group size	avg. length of stay
1998	1,903	770	2.47	1.7 nights
1999	2,015	790	2.55	1.68 nights
2001*	1,401	539	2.6	1.7 nights

* low water year; reservoir drained down by early August.



Historically, only 25% of the visitors who enter the project area participate in camping, while 80% picnic, 60% use the site as a rest-stop, 50% swim, 50% fish, and 35% participate in power boating activities.

Economy and Society

The Custer County economy is dependent on agriculture, mining and rural recreation/tourism.

D. ENVIRONMENTAL IMPACTS

Alternative II Proposed Action- Complete Site Reconstruction Partial Roadway Paving

Air Quality

Dust caused by vehicles using graveled roads would be lessened to a moderate degree by paving the main higher speed access road. Some dust would be generated within the campground's remaining graveled roadways and during the construction phase. Smoke would be generated if slash piles are burnt. However, the smoke should dissipate quickly with local updrafts and is not expected to produce an appreciably greater amount of smoke than is currently being produced by campfires.

Water Quality

Camp site construction and reconstruction would offer adequate set-back from the reservoir shores to preclude production of sediment to the reservoir under normal construction conditions. Silt fences, installed between work areas and the shoreline to protect the reservoir's water quality in case of rainstorm or other unexpected weather or construction-related event, would reduce production of sediment to the reservoir. Sediment production from the campground areas to the reservoir may be increased in the short term, especially in areas of disturbance near the reservoir high water line during the planting of new vegetation. In the long term, sediment production to the reservoir would be reduced by the increased ground cover from planted vegetation and by the improved soil conditions that would develop below the added vegetation.

It is anticipated that foot access from the camp and day use areas to the lake edge would result in little production of sediment to the water due to the very rocky character of the shoreline below the reservoir high water line.

Added areas of asphalt in the campground would increase the overall rate of surface runoff from rainstorm and snow melt somewhat. The increase of vegetation between the asphalt edge and the lake shore is expected to reduce the rate of runoff and increase infiltration rates, and serve to mitigate increased runoff from the asphalt.

Runoff from water spigots would be trapped in gravel wells below spigots, so there would be no overland runoff of splash water at spigots.

Vegetation and Soils

As designed, the proposed action would have minimal impacts to the vegetation and soil resources. Soil disturbance from heavy equipment traffic and road development would be short term. Any altered vegetation would be stabilized by subsequent planting of native species. Indirect impacts including reduction of infiltration resulting in increased surface runoff and localized erosion from bare soils would be progressively reduced as the vegetation becomes established.

Non-native Species

In order to minimize impacts from non-native species, weed prevention tactics have been built into the construction phase by considering spread factors in the design of the project, construction and operation of the site.

Visual Resources

Under the proposed action minor changes are proposed which primarily involve structures and vegetation. No landform features would be affected. Weak vegetative color and texture contrasts will result from the planting of trees and shrubs in an area currently dominated by sage brush. These are long term effects which would not be evident to most observers as the trees and shrubs would slowly reach maturity. Structural contrasts would range from none (texture) to moderate (line) with the proposed action. New structures such as the play area, day use shelter, and warming hut would create new distinct lines which would be broken up by proposed vegetative plantings. The restrooms and wind shelters would in essence simply be replacing those already in existence, while the largest structure (the fee station) is slated for removal from the site. The partial asphalting would result in greater color contrasts than exist presently and would form more distinct lines. These contrasts would be broken up by minor contours in the land and vegetative screening.

The most likely visual impacts would be when the project site is viewed from the reservoir as structures may at times be sky-lighted on the horizon (if the observer is very close to the west shore) for long periods of time. However, the most dominant form in the landscape from this perspective is the Lost River mountain range which tends to draw the eye of the observer far more than the subordinate recreation site in the foreground. Visual impacts from the other major key observation point (Highway 93) would be negligible due to the short time span which the site is in view (approximately 45 seconds) combined with the inferior position of the project area to the highway.

These anticipated visual contrast levels are within allowed limits for VRM class II areas and are not out of character for the development level of the site.

Recreation Resources

The proposed project is designed to enhance the visitor's recreation experience by accommodating modern conventional motorized camping vehicles and associated amenities as well as improving the safety and functionality of facilities. It is likely that the average visitor length of stay would increase due to the proposed actions, however the number of visitors staying at the site at any particular time is not likely to increase as this alternative does not increase the capacity of the campground. The proposed addition of day use facilities would provide greater opportunities for a variety of family oriented outdoor recreational experiences throughout the year. Accessibility for people with disabilities to experience this area would be greatly increased as well.

Partial asphalting would result in less 'wear and tear' on vehicles staying on the paved portions of the site, though potential pot-holing where pavement meets gravel could create a maintenance concern for both the site and vehicles. Asphalting of roads minimizes the need for road maintenance on that portion of the road system.

The proposed alternative is consistent with the existing Roaded Natural setting managed for at this site.

Wildlife

Effects on local wildlife populations would be minor. Construction and development activity would result in the loss of some small ground-dwelling animals that currently use the immediate area. Sagebrush and other vegetation used by small birds and mammals would be crushed or otherwise damaged by any construction activity. Disturbance associated with construction activity and human activity in and around the campground would disturb and displace some species of wildlife from the campground area.

Economy and Society

It is anticipated that rural recreation and tourism would continue to grow in importance throughout Custer County. Redevelopment of the recreation site would increase the likelihood visitors would stay in the area for longer (per stay and for an expanded season) periods of time, which in turn would contribute to the overall economy of the community.

Cumulative Effects

The immediate and long-term effects from the proposed action are expected to be low to moderate when examined as an isolated action. However, this proposal is a single component in the larger context of more recreation facilities/interpretive waysides likely to be improved or developed

within the highway corridor from Mackay to Challis. With the development of day use facilities and interpretive waysides, congestion caused by an increase in the numbers of vehicles pulling on and off the highway is possible, though mitigation efforts such as well planned pullout lanes would certainly minimize the effects. The significance of this possible congestion would largely depend on the overall growth pattern of vehicle use of the highway rather than these combined activities, which would not likely increase use on the road in and of themselves.

With the construction and/or improvement of a series of recreational sites along the highway corridor, the amount of actual physical disturbance to the ground would also result in increased cumulative effects. When considered in the light of long term effects, a substantial amount of surface disturbance in the form of lost or trampled vegetation and compacted soils would occur. Once again, however, through careful planning to incorporate such measures as reseeding and vegetative plantings, the cumulative effects can be minimized.

The economic effects from the collective actions along the Highway 93 corridor would arise from potentially longer stays by tourists in Custer County. The improved quality of the recreation opportunities in terms of both facility development and management of the area should result in greater efficiency in meeting the needs of the public.

Summary

No significant individual or cumulative impacts are anticipated as a result of this alternative. The proposed action would have low to moderate immediate impacts on a localized setting.

Alternative I Minimal Site Improvements

Air Quality

Air quality within the campground and main access road would remain essentially the same as vegetation, soils, and surfacing would not be substantially altered.

Water Quality

A small amount of ground disturbance is anticipated with minor site reconstruction and restroom replacement. As these sites are not adjacent to the lake shore, it is not expected that this alternative would impact lake water quality. Picnic table replacement is expected to produce little loose soil material.

Aggregate surfaced roads near the lake shore would produce a small amount of fine soil material, especially when accessed under wet conditions. This material is not expected to be of volume sufficient to affect water quality.

Vegetation and Soils

Small amounts of vegetation would be crushed or uprooted and soils would be compacted locally during excavation and compaction around replaced structures. Soils and vegetation would undergo light impacts during maintenance of existing structures.

Non-native Species

Equipment would be washed and weed free prior to any work causing a ground disturbance. An appropriate native plant species mix would then be planted immediately after work is completed. An aggressive weed treatment program would be initiated at the disturbed site and would be expected to eradicate any new infestations.

Visual Resources

The visual contrasts for the project area would remain essentially unchanged from current conditions under this alternative. However, the condition of the buildings and facilities would continue to degrade and give the appearance of poor facility management.

Recreation Resources

Recreation resources would not be impacted over the short run, as the site would continue to be used in much the same manner as now. However, the lack of adequate control and protection of the site, and the likelihood of increased damage to the site is a strong possibility. The restrooms on site need to be replaced as they are substandard and do not meet current ADAAG accessibility standards.

This alternative is consistent with the existing Roaded Natural setting managed for at this site.

Wildlife

Construction and maintenance activity would result in the loss of some small ground-dwelling animals that currently use the immediate area. The extent of loss would be small and would have no measurable long-term effect on area wildlife populations. No other effects are anticipated.

Economy and Society

It is anticipated that rural recreation and tourism would continue to grow in importance throughout Custer County. This alternative would provide for a slight increase in rural recreation experiences but would probably not attract many new users or lengthen the stay of visitors in the area.

Cumulative Effects

There would be no cumulative effects expected from the implementation of this proposal.

Summary

No significant individual or cumulative impacts are anticipated as a result of this alternative. The action would have low to moderate immediate impacts on a localized setting.

Alternative III Complete Site Reconstruction, Paving of all Access Roads, Camping Spurs, and Parking Areas

Air Quality

Dust currently caused by vehicles using graveled roads would be eliminated under this alterative. Smoke would be generated if slash piles are burnt. However, the smoke should dissipate quickly with local updrafts and is not expected to produce an appreciably greater amount of smoke than is currently being produced by campfires.

Water Quality

The effects of this alternative on water quality would be similar to those of the proposed action, with the exception of effects of the added asphalt. The additional asphalt area decreases the area of infiltration and increases the area surface runoff. Those portions of asphalt adjacent to the lake shore offer the possibility of concentrated water running from the asphalt and producing minor erosion of soils near the lake shore.

Vegetation and Soils

The effects of this alternative on vegetation and soils would be essentially the same as those of the proposed action.

Non-native Species

The effects of this alternative on non-native species would be the same as those of the proposed alternative.

Visual Resources

The effects of this alternative on visual resources would be nearly identical to those of the proposed action except that the bold lines and color contrasts created by asphalt would be evident throughout the entire site.

The anticipated visual contrast levels would still be within allowed limits for VRM class II areas and are not out of character for the development level of the site.

Recreation Resources

This alternative is designed to enhance the visitor's recreation experience by accommodating modern conventional motorized camping vehicles and associated amenities as well as improving the safety and functionality of facilities. It is likely that the average visitor length of stay would increase due to the proposed actions, however the number of visitors staying at the site at any particular time is not likely to increase as this alternative does not increase the capacity of the campground. The proposed addition of day use facilities would provide greater opportunities for a variety of family oriented outdoor recreational experiences throughout the year. Accessibility for people with disabilities to experience this area would be greatly increased as well.

Total asphalting of access roads, parking areas, and camping spurs would result in less 'wear and tear' on vehicles driven through the site.

This alternative is consistent with the existing Roaded Natural setting managed for at this site.

Wildlife

Effects on local wildlife populations would be similar to those of the proposed alternative.

Economy and Society

It is anticipated that rural recreation and tourism would continue to grow in importance throughout Custer County. Redevelopment of the recreation site would increase the likelihood visitors would stay in the area for longer (per stay and for an expanded season) periods of time, which in turn would contribute to the overall economy of the community.

Cumulative Effects

The immediate and long-term effects from this action are expected to be low to moderate when examined as an isolated action. However, this proposal is a single component in the larger context of more recreation facilities/interpretive waysides likely to be improved or developed within the highway corridor from Mackay to Challis. With the development of day use and interpretive waysides, congestion caused by an increase in the numbers of vehicles pulling on and off the highway is possible, though mitigation efforts such as well planned pullout lanes would certainly minimize the effects. The significance of this possible congestion would largely depend on the overall growth pattern of vehicle use of the highway rather than these combined activities, which will not likely increase use on the road in and of themselves.

With the construction and/or improvement of a series of recreational sites along the highway corridor, the amount of actual physical disturbance to the ground would also result in increased cumulative effects. When considered in the light of long term effects, a substantial amount of surface disturbance in the form of lost or trampled vegetation and compacted soils would occur. Once again, however, through careful planning to incorporate such measures as reseeding and vegetative plantings, the cumulative effects can be minimized.

The economic effects from the collective actions along the Highway 93 corridor would arise from potentially longer stays by tourists in Custer County. The improved quality of the recreation opportunities in terms of both facility development and management of the area should result in greater efficiency in meeting the needs of the public.

Summary

No significant individual or cumulative impacts are anticipated as a result of this alternative. This alternative would have low to moderate immediate impacts on a localized setting.

Alternative IV Improve Existing Roadways and Replace Substandard Vault Toilets

Air Quality

Air quality within the immediate area would remain essentially the same, though fresh gravel may reduce the amount of dust raised by vehicles to a minor extent.

Water Quality

Ground disturbance associated with road reconstruction and restroom replacement, especially areas of disturbance near the reservoir high water line, could produce sediment to the lake shore. Silt fences, installed between work areas and the shoreline to protect the reservoir's water quality in case of rainstorm or other unexpected weather or construction-related event, would reduce production of sediment to the reservoir.

Gravel surfaced roads would produce similar amounts of fine soil material as the present campground roadways. Compared to asphalt, graveled roadways would produce slightly more fine soil material, especially when accessed in wet conditions.

Vegetation and Soils

Small amounts of vegetation would be crushed or uprooted and soils would be compacted locally during excavation and compaction around replaced structures.

Non-native Species

Equipment would be washed and weed free prior to any work causing a ground disturbance. An appropriate native plant species mix would then be planted immediately after work is completed.

An aggressive weed treatment program would be initiated at the disturbed site and would be expected to eradicate any new infestations.

Visual Resources

This alternative to redesign the entranceway and roadways and replace the existing toilets would not create any noticeable visual contrasts from current site conditions in the long run. Temporary ground disturbances would be evident during construction, though the overall aspects of line, color, texture, and form would not be affected.

Recreation Resources

This alternative is designed to enhance the visitor's recreation experience by accommodating modern conventional motorized camping vehicles and improve the safety and functionality of restroom facilities.

This alternative is consistent with the existing Roaded Natural setting managed for at this site.

Wildlife

Effects on local wildlife populations would be the same as under the proposed action, except that the potential for displacement or loss of wildlife would be reduced proportionately to the amount of construction activity.

Economy and Society

It is anticipated that rural recreation and tourism would continue to grow in importance throughout Custer County. This alternative would provide for a slight increase in rural recreation opportunities but would probably not attract many new users or increase their length of stay.

Cumulative Effects

The immediate and long-term effects from this action are expected to be low to moderate when examined as an isolated action. However, this proposal is a single component in the larger context of more recreation facilities/interpretive waysides likely to be improved or developed within the highway corridor from Mackay to Challis. With the development of day use and interpretive waysides, congestion caused by an increase in the numbers of vehicles pulling on and off the highway is possible, though mitigation efforts such as well planned pullout lanes would

certainly minimize the effects. The significance of this possible congestion would largely depend on the overall growth pattern of vehicle use of the highway rather than these combined activities, which would not likely increase use on the road in and of themselves.

With the construction and/or improvement of a series of recreational sites along the highway corridor, the amount of actual physical disturbance to the ground would also result in increased cumulative effects. When considered in the light of long term effects, a substantial amount of surface disturbance in the form of lost or trampled vegetation and compacted soils would occur. Once again, however, through careful planning to incorporate such measures as reseeding and vegetative plantings, the cumulative effects can be minimized.

The economic effects from the collective actions along the Highway 93 corridor would arise from potentially longer stays by tourists in Custer County.

Summary

No significant individual or cumulative impacts are anticipated as a result of this alternative. This alternative would have low to moderate impacts, but those impacts would be localized.

E. CONSULTATION AND COORDINATION

Persons and Agencies Consulted

Idaho Department of Fish and Game
Custer County Commissioners
Butte County Commissioners
Lost River Irrigation District
Idaho Department of Parks and Recreation
Custer County Waterways Committee
Butte County Waterways Committee
Upper Columbia-Salmon Clearwater District
Resource Advisory Council

List of Preparers:

Kate Forster	Fisheries Biologist
Pete Sozzi	Outdoor Recreation Planner
Jerry Gregson	Wildlife Biologist
Linda Clark	Archaeologist
Bill Diage	Ecologist
Elias Williams	Range Technician
Jeff Christenson	Outdoor Recreation Planner

II - PROJECT PLAN

A. INTRODUCTION

Location and Setting

The site encompasses approximately 80 acres in the southern part of Custer County, 6 miles north of Mackay, Idaho. The parcel is readily accessible by US Highway 93, which parallels the eastern boundary. The western boundary of the site is the Mackay Reservoir. The majestic Lost River Range provides the northern backdrop for the area. These mountains rise precipitously above the valley floor and foothills to heights well over 11,000 feet. Mt. McCaleb, the 11,592 foot peak named after the area pioneer Jesse McCaleb, is visible from the recreation site. To the south lie the White Knob Mountains with Mackay Peak and White Knob rising over 10,000 feet in elevation.

Most of the surface and shore of the reservoir is owned by the Big Lost Irrigation District. Local ranchers own a small amount of the shoreline with the remainder under BLM jurisdiction. Because of this ownership pattern the shoreline is essentially in a natural undeveloped state. Drawdown of the reservoir reaches its low point in late summer when downstream demand for irrigation is greatest.

Due to the semi-arid environment of the site, vegetation within the sage brush/greasewood plant community takes years to regenerate and reach maturity. Many visitors have complained about the lack of trees and shade, a common occurrence in high desert environments. Currently, a drip irrigation system waters about fifty small artificially planted trees.

Project Summary

A summary of the proposed project and alternatives can be found in the attached Environmental Assessment (pp. 6-9).

Project Objectives and Need

The objective of this proposed project is to redevelop the recreation site in order to meet current Land and Water Conservation Fee Site and ADA standards, replace aging infrastructure systems posing potential visitor safety hazards, and to provide for changing recreational needs. Facilities would include access roadways, campsite parking pads, and an RV dump station with dimensions capable of accommodating the larger RV's in wide use today (>40' in length), a potable water system, tent campsites, picnic sites, restroom facilities, fish cleaning station, and warming hut for ice fishers. All facilities would be designed to provide universal accessibility.
Background information can be found in the attached Environmental Assessment (pp. 5,6)

B. DATA ANALYSIS SUMMARIZATION

Social Data Summary

Recreation Activity Preferences

Mackay Reservoir provides many unique recreational activities in this high desert region. Preferred recreation activities include: camping, boating, fishing, ice fishing and picnicking. The site also receives a substantial amount of use as a roadside pit-stop and break area. The anglers and the Highway 93 travelers represent two diverse user types with different camping desires. The anglers tend to be of a very social nature and like close, group oriented camping opportunities near the boating facilities. They like to pull their boats out of the water each night and want to stay camped within view of their boats. Transient highway travelers represent the other substantial camping user type. These individuals tend to travel alone or in small groups and prefer a more solitary form of camping experience.

Visitation

The recreation profile shifts depending on the season and water levels. During the winter the main use of the site is day use ice fishing with hundreds using the site on some weekends. During the spring after ice out, campers; primarily from the southern Idaho desert, come to fish, boat, water-ski, camp and socialize; at the same time local day users participate in all activities except camping. The summer season hosts the same groups as the spring but also hosts many long distance travelers that stop for the night. Fall use slows down with hunters and fishermen dominating the scene. The site is extensively used as a rest stop by Highway 93 motorists. On-site visitor counts have totaled between forty thousand and sixty thousand visits per year with day use accounting for more that 75% of use.

In 2001 only 1,401 camping visits (Camping visit = 1 person, regardless of length of stay) were recorded by the campground hosts from May 16th through October 14th. However, 2001 was a very dry year and the reservoir was drawn down extremely low by the end of July. It is evident from 2001 visitor use statistics that origin of residency steadily shifts from local use to out of state visitors over the course of the season. In May 92% of the campground users came from within Idaho, dropping monthly to 63% in June, 54% in July, and 42% in August. In state use begins to climb again as the fall season takes hold with 43% in September and 50% in October. The balance of users come primarily from the states outside Idaho with only a small percentage of users coming from out of the country (4% was the highest out of country use, occurring in September).

Physical Data Summary

Existing Facilities and Services

Currently there are 57 camping units, a potable water system, sewage dump station, five vault restrooms, gravel access roads, including access to the Irrigation District's launch ramp facilities. Garbage pickup is performed weekly from mid-May to mid-November and on an as-needed basis the rest of the year. Site maintenance is performed continuously throughout the summer months by volunteer campground hosts and as needed by seasonal and term employees the rest of the year. Law enforcement and visitor protection is provided by the BLM ranger and Custer County sheriff deputies as needed. No livestock grazing is permitted within the boundaries of the recreation site; it is not considered to be part of any grazing allotment. However, the water system accommodates a stock water trough on the adjacent Mackay Allotment.

The main infrastructure facilities have been in place since the original site construction in the 1960s. These facilities include the potable water system, restrooms, RV dump station, access roads, and campsite spurs. The water system supplies a stock watering trough on the Mackay Allotment. Potable water contamination from pipe corrosion and back flow from the trough pose possible safety concerns. The ability of the dump station leach field to effectively process septic waste and treatment chemicals is also questionable and must be addressed to ensure visitor and environmental safety. Parking spurs, interior roads, and access roads are designed for single vehicles and the small trailers which were prevalent in the 1960s. The restrooms are wooden buildings with structural and sanitary inadequacies.

C. ACCESS

The transportation route to the Mackay Reservoir is U.S. Highway 93, a major north-south highway extending from the Canadian border just west of Glacier National Park in Montana to Phoenix, Arizona.

D. PROJECT PLAN CONCEPT AND DESIGN PARAMETERS

Current Status

Existing development has been described in Part II, Data Analysis Summary. Emphasis will be placed on construction of facilities.

Basic Improvements

Alternatives:

A summary of the project alternatives can be found in the attached Environmental Assessment (pp. 6-9).

E. PROJECT DEVELOPMENT OVERVIEW

Required Administrative Actions

1. Conduct final survey and design.

2. Establish budget and funding for construction, operation and maintenance.

Required Interim Use Supervision

It will be necessary to close portions of the recreation site to the public during construction. However, access to the launching facilities would be kept open. The closure will be announced on local radio and printed in the Challis, Arco, Twin Falls and Idaho Falls newspapers. The contractor will be responsible for security during construction.

Project Development Phasing Outline

Phase 1 (west camping loop)
1. Install all underground utilities (potable water, drip irrigation, electric, vault toilets)
2. Construct campsites, roadways, buildings, and parking areas
3. Gravel the roadways, campsites, and parking areas

Phase 2 (east camping loop)
1. Install all underground utilities (potable water, drip irrigation, electric, septic vaults)
2. Construct campsites, roadways, buildings, and parking areas
3. Gravel the roadways, campsites, and parking areas

Phase 3
1. All asphalt paving
2. Construct trails
3. Landscaping

Method of Project Survey and Design

1. BLM will survey and design this project.

F. COST ESTIMATE

Basis of Estimate: National Park Service Class "C" Estimating Guide

Alternative I - Minimal Site Improvements

1. Accessible table, grill, raised tent pad and hard surfacing for two sites.	$6,120

Alternative II - Site Reconstruction, Partial Paving

1. Electrical - underground power, lighting, pumphouse & camp host site.	$54,200
2. Water system- well, pumphouse, camp host site, dump station, drip irrigation system, drinking fountains	$89,400
3. Sewer - 4 new restrooms, new dump station, camp host holding tank and fish cleaning station	$147,000
4. Transportation system - Pave access road to boat ramp, construct new campground goads, parking and trails	$108,600
5. Recreation site facilities - 30 individual sites, 2 group sites, 5 tent sites, 4 accessible sites, camp host site, fee station, shade shelters and warming huts	$158,100
6. Demolition and rehabilitation - remove existing buildings and obliterate, rehabilitate existing campground roads.	$39,600
7. Landscaping and vegetation - plant trees and landscaping	$45,400
Subtotal	$643,200
Construction Contingencies @ 20%	$123,500
Subtotal	$770,800
Contractor's Overhead & Profit (25%)	$192,700
Project Total	$963,500

Alternative III - Site Reconstruction, Paving of all roads and parking

1. Electrical - underground power, lighting, pumphouse & camp host site.	$54,200
2. Water system - well, pumphouse, camp host site, dump station, drip irrigation system, drinking fountains	$89,400
3. Sewer - 4 new restrooms, new dump station, camp host holding tank and fish cleaning station	$147,000

4. Transportation system - construct new campground roads, parking and trails, pave all roads, including access road	$341,800
5. Recreation site facilities - 30 individual sites, 2 group sites, 5 tent sites, 4 accessible sites, camp host site, fee station, shade shelters and warming hut	$158,100
6. Demolition and rehabilitation - remove existing buildings and obliterate, rehabilitate existing campground roads	$39,600
7. Landscaping and vegetation - plant trees and landscaping	$45,400
Subtotal	$875,500
Construction Contingencies @ 20%	$175,100
Subtotal	$1,050,600
Contractor's Overhead & Profit (25%)	$262,700
Project Total	$1,313,300

Alternative IV - Improve existing roads and replace toilets

1. Gravel all roads and parking	$77,700
2. Replace 4 toilets with 2 double units & 2 single	$52,000
Total	$129,700

Alternative V - Close and rehabilitate the site

1. Remove existing buildings	$18,000
2. Re-contour roads, pads and parking	$18,600
3. Re-seed	$9,500
4. Re-vegetation	$3,200
5. Remove barriers, hydrants, etc.	$3,500
Total	$52,800